MARKETS AND TRADE

Panel Manager - Dr. William Amponsah, North Carolinia A&T State University Program Director - Dr. Mark R. Bailey

The goal of this program is to support research aimed at assessing market preferences, demand, and utilization for various agricultural and forest products and commodities; determining the ability of the U.S. to compete for these markets; and assessing the impacts of new products and production technologies on U.S. competitiveness, the environment, and rural economies. Competitive studies ascertain the ability of the U.S. and/or foreign agricultural, aquacultural, and forest products sectors to compete successfully in increasingly open domestic and/or foreign markets. Studies that assess and evaluate national and/or international public policies and regulations that impact upon U.S. agricultural competitiveness are needed. Such studies may also address the net benefits of increased competition and the distributional effects among the factors of production. Proposals are requested that assess and evaluate issues affecting the competitiveness of U.S. producers and processors, as well as their foreign competitors in domestic and/or international markets. Research was specifically encouraged to: (1) identify, describe and quantify the size of potential international markets; (2) ascertain the ability of the U.S. to compete in particular agricultural global markets; (3) risk analysis and cost benefit analysis dealing with food safety and other risk management scenarios; and (4) determine the benefits and costs of adopting new products and/or production/processing methods for agricultural and forest materials produced using sustainable and alternative agricultural and forestry practices.

2001-01645 Empirical Analysis of the Behavior of Markets for Storable Commodities Wright, B.D.

University of California, Berkeley; Department of Agricultural and Resource Economics; Berkeley, CA 94720-3310

Grant 2001-35400-10559; \$150,000; 2 Years

This project aims to improve our knowledge of the behavior of markets for storable commodities using advances in the modeling of such markets. First, we investigate two kinds of improvements in the estimation of the market model. The first is to move from annual-average to higher-frequency data, to avoid misleading smoothing of prices by annual averaging. Second, we allow for supply response by commodity producers. Then we shall develop and apply tests of commodity priced behavior based on a newly-developed special form of the model that explains observations of "non-stationary" short-run price behavior and apparently "mean reverting" longer-run behavior, which have long puzzled economists. This model offers great potential for sharper distinctions between "stationary" and "non-stationary" behavior, and will help refine our understanding of competitive time series for price behavior as a basis for forecasting, distinguishing panics, market manipulation and other phenomena from normal competitive behavior. It will further advance our knowledge of the implications of price supports and other stabilization methods for market behavior.

2001-01702 A Differential Factor Demand Approach to Import Demand Analysis Kilmer, R.L.; Washington, A.A.

University of Florida; Food and Resource Economics Department; Gainesville, FL 32611-0240 Grant 2001-35400-10571; \$150,000; 2 Years

The Federal Agriculture Improvement and Reform Act of 1996 (FAIR Act) legislated a phase out of dairy price supports by January 1, 2000. This was recently extended for one year. As a result of the General Agreements on Tariffs and Trade (GATT), subsidized U.S. dairy exports will be reduced by 21 percent by the year 2000 with more reductions expected. These changes in policy and the reduction in the number of dairy farms have made gaining a larger share of the world dairy export market more important to U.S. producers/processors. The major goal of this project is to provide the dairy industry with information that will enhance its competitiveness in international markets. This research will provide empirical measures of the sensitivity of international demand for U.S. dairy products to changes in price, total imports, and the prices of substitute commodities, including the sensitivity of international demand for U.S. products with respect to competitor's prices of the same commodity. Second, projections will be made to determine future international demand and market prospects for U.S. dairy products. This information will be useful to dairy processors, dairy manufacturers, dairy exporters, and dairy associations. It will be important to dairy farmers, as their market for milk will be expanded. The capacity of the U.S. dairy industry is larger than the U.S. domestic demand for dairy products. New international markets are essential. This will allow the largest dairy industry in the world to grow and create new economic opportunities for the private sector.

2001- 01646 Conference on Government Policy and Farmland Markets: Implications of the New Economy

Moss, C.B.; Schmitz, A.

University of Florida; Department of Food Science and Resource Economics; Gainesville, FL 32611

Conference Grant; Grant 2002-35400-11540; \$10,000; 1 Year

Even with the rapid advances in technology in agriculture during the twentieth century, farmland remains a critical factor of production. The importance of farmland is underscored by its dominant position in the agricultural balance sheet over time. However, despite the importance of land to agricultural production and its importance to sector solvency, economic models explaining change in land prices have only met with limited success. The literature suggests that Ricardian rents and the standard capitalization formula predict long-run variations in land prices, but short-run deviations in the form of asset pricing bubbles cannot be rejected. In addition, the economic fundamentals of farmland values may be changing. First, the linkage between farmland values and sector solvency may directly impact the economic viability of the farm sector. Second, the structure of agricultural production is changing. Third, farmland is increasingly affected by the environmental policy debate. Finally, the value of farmland is critical in understanding the impacts of agricultural and trade policy. Based on these four factors, this project will develop a conference drawing on noted experts from the United States and Canada.

2001-01709 Coalitions and International Competitiveness: The Case of U.S. Sugar Policy Schmitz, A.; Moss, C.B.

University of Florida; Department of Food Science and Resource Economics; Gainesville, FL 32611

Grant 2001-35400-10597; \$55,000; 1 Year

The United States Sugar Policy is highly controversial as it creates significant costs to U.S. consumers and users. Because of its highly protectionist nature, this policy presents a major

problem for U.S. negotiators in any future WTO talks. If future trade negotiations are not forthcoming, reforming U.S. sugar policy will have to take place within the U.S. itself. It is our hypothesis that if changes to U.S. policy are possible it is necessary that the vertical and horizontal structure of the American Sugar Alliance (ASA) be identified and modeled in terms of its effectiveness in supporting the U.S. Sugar Program. Sugar growers are part of ASA (as are others, including corn growers and high fructose corn syrup manufacturers).

This research identifies the structure of the coalitions on both sides of the sugar policy debate. The effectiveness of these coalitions in supporting current U.S. sugar policy is explored using coalition theory and the new institutional economics. Coalition theory helps us understand why certain groups support a common goal and are effective in doing so. The new institutional economics helps explain why there is a high degree of integration in the U.S. sweetener industry, and how this integration helps in pursuing a common policy objective. Voting models, along with the theory of log rolling, will be used to demonstrate why the ASA is even stronger than what might be expected in the presence of coalition theory and the new institutional economics. Politicians perceive that there are votes to be had by supporting current legislation. In addition, in framing sugar policy, support comes not only from the Alliance, but also from commodity groups, including corn, peanuts, and tobacco.

2001-01796 Specific Factor, Endogenous Policy Formations, and Free Trade Analysis of Sugar Market

Devadoss, S.

University of Idaho; Department of Agricultural Economics; Moscow, ID 83844-2334 Standard Strenghtening Award; Grant 2002-35400-11693; \$133,000; 2 Years

U.S. sugar policies have traditionally come under attack by consumers, sweetener users, and certain lawmakers because of the high domestic support prices. For example, in response to current record supply, depressed market prices, and government costs, legislators suggested that government should consider paying farmers to quit growing sugar altogether. Such directives by policy makers coupled with increased foreign competition arising from free trade policies should be of great concern to sugar producers. However, due to heavy investments on, land, processing plants, commitment to grow and deliver certain amount of raw products for processing, and soil characteristics, producers are not able to switch to other crops during the period of depressed prices and expect government support to continue to grow sugar beets and canes. Thus, it is worth examining the effects of phase out of U.S. sugar programs and trade liberalization policies on sugar market. Objectives of this project are to (1) measure the impacts of protective sugar policies on the value of land used in sugar production, and (2) develop a world sugar trade model and analyze the effects of trade liberalization on U.S. sugar market. Empirical results of this project will be useful to sugar farmers, processors, bankers and lenders, agribusiness firms, and policy makers.

2001-01780 Evolving Demand for Dairy Products in Asia: Policy and Trade Implications Beghin, J.C.; Fuller, F.

Iowa State University; Department of Economics, Center for Agricultural and Rural Development; Ames, IA 50011-1070

Grant 2002-35402-11690; \$150,000; 2 Years

This project assesses Asian dairy markets and trade prospects, with a focus on Japan, Korea, Indonesia, and China. Specific objectives include (1) collecting market data (time-series

of supply, disappearance, trade and price) and policy information for each country, (2) estimating demand equations for dairy products, (3) undertaking policy analysis of the impact of domestic and border distortions, and (4) assessing the trade prospects in these Asian markets. The research would focus on international competitiveness and market access issues in the dairy industry. Major trade impediments exist in Asian dairy markets and they compromise market access to these fast-growing markets. The U.S. dairy industry would benefit from the trade liberalization of these markets, through better world prices, and increased exports of products (whey and other). Timing is critical for this research in the context of agricultural and trade policy reform considered in the coming WTO negotiations. We would provide advances in the empirical assessment and evaluation of the competitiveness of international dairy markets; and we would assess the impacts of public policy alternatives (agricultural and trade) on the dairy industry performance. Our research would contribute to the assessments of the comparative advantage of the major agricultural dairy producing and importing nations.

2001-01793 GMOs as (Possibly Inferior) Differentiated Product Innovations: Economics and Public Policy

Moschini, G.; Lapan, H.E.

Iowa State University; Department of Economics; Ames, IA 50011-1070 Grant 2001-35400-10572; \$120,000; 2 Years

This project will study several economic issues related to the introduction of Genetically Modified Organisms (GMOs). The unifying theme is to model explicitly the fact that some consumers perceive such new products as "inferior," and that separating GMO and non-GMO product could be quite costly. The question to be investigated is whether the introduction of a new variety of an agricultural product, which cannot readily be distinguished from pre-existing products, actually lowers economic efficiency and social welfare. A critical element of the analysis concerns the viability of identity preservation (IP). If IP is not a viable option, can production policies and/or trade restrictions be welfare improving? And if IP were feasible but costly, would a system of voluntary labeling lead to higher welfare and efficiency, or would further government intervention be required? A related question is whether a mandatory labeling scheme for GMO products can be more effective than a voluntary one. Finally, does this type of new product bring about any biases on private sector R&D, and on the direction of this research, when innovating firms do not internalize the social costs? The proposed project highlights in a novel way some emerging issues that can have a potentially large impact on the U.S. agri-food sector. A number of policy decisions, both domestic and trade-related, are likely to be required in the near future to address growing concerns related to GMOs. The results of this project should prove very useful in clarifying the economic implications of various policy options.

2001-01629 Bioeconomic Development, Assessment and Management of Marine Aquiculture Technology

Dalton, T.J.; Cheng, H.-T.; Kling, L.

University of Maine, Orono; Department of Resource Economics and Policy; Orono, ME 04469-5782

Standard Strengthening Award; Grant 2001-35400-10555; \$115,000; 2 Years

The Gulf of Maine aquaculture economy is largely undiversified, concentrated in Atlantic salmon farming, and under increasing pressure from international competition and a Federal endangered species listing. The goal of this project is to develop financially viable options to the

culture of salmonids through economic impact assessment of haddock rearing (including live feed production), nearshore grow-out and market potential. This project will develop economic models of juvenile haddock hatcheries, including the production of live feed for larval development, and haddock grow-out in netpens. These models will address important uncertainties facing potential producers, including growth rates and survivability, and evaluate their impact on costs, returns and production decisions. These models will derive the optimal size for a production operation interested in live feed production, saltwater hatchery, or net pen growout facilities as well as insight into vertical coordination between production activities. Public intervention into investment and operating credit will be evaluated to identify the role of government-based aquaculture business promotion policy. Marketing analysis will be conducted to determine consumer preferences for haddock. There is an absence of economic information on haddock farming and the market potential for the species. Development of efficient production systems will determine whether the Northeast has a comparative production advantage in cold water marine finfish aquaculture and it will contribute to sustaining rural incomes in some of the poorest regions of the country. In addition, haddock production has the potential to diffuse environmental tensions between salmon farming and wild Atlantic salmon preservation through species substitution. Results from this research will be communicated to the public through the innovative public-private partnership at the University of Maine Center for Cooperative Aquaculture Research.

2001-01706 Designing an Effective Labeling Program for Genetically Engineered Food Teisl, M.F.; Vayda, M.; Poe, B.

University of Maine; Department of Resource Economics and Policy; Orono, ME 04469-5782 Grant 2001-354000-10548; \$180,000; 2 Years

The labeling of genetically engineered foods (GEFs) is a topic of growing public debatea debate whose outcome could dramatically alter the U.S. food industry. The debate is largely about how much information to supply to consumers to facilitate choice and how that information should be supplied. Currently, no study provides guidance as to the optimal form of GEF labeling. This research is specifically designed to assist policy makers and manufacturers as to how to label GEFs. Our proposed research uses both qualitative and quantitative research methods to identify: (1) what types of information about GEFs is important to consumers; (2) where consumers expect/desire to view GEF labels; (3) whether consumers expect/desire mandatory or voluntary labeling of GEFs; (4) whether consumers expect/desire simple or detailed labeling of GEFs; (5) the threshold where consumers require a food to be labeled as a GEF; (6) who consumers view as the appropriate organization to administer GEF labeling programs; (7) how the characteristics of the final food product influences the desire or need for GEF labeling; (8) the likely impacts of different GEF labels on consumers' purchasing intentions; (9) if consumer acceptance of a GEF is tied to whether the main beneficiary of the genetic modification is perceived to be the consumer or the producer. The proposed research approach is similar to research successfully used to design nutrition and health labels for food, and environmental labels for electricity suppliers.

2001-01626 The Economics of Green Payments to Reduce Agricultural Non-point Source Pollution

Horan, R.D.

Michigan State University; Department of Agricultural Economics; East Lansing, MI 48824-1039

Grant 2001-35400-10558; \$105,000; 2 Years

This research will examine the design and economic performance of different types of green payment' incentives that can be used to reduce agricultural nonpoint source pollution. When the distribution of economic welfare across different regions and/or sectors (e.g., farm income, returns to owners of factors of production such as land, labor, capital, and fertilizer) is also a consideration. Additionally, this research will increase the scientific understanding of the role of water resource management on the quality of water resources at the watershed scale, by scientifically analyzing water policies that promote sustainable protection of water resources. We will do this by (1) advancing scientific understanding of the degree to which practical and credible green payments programs can contribute to achieving economic efficiency and distribution goals and also water quality goals in a cost-effective manner, and (2) providing conceptual and empirical guidance for the design of green payments programs that will be useful for federal and state agencies in developing cost-effective watershed-based programs. To satisfy these objectives, we will develop a conceptual model of green payments and use the insights from this model to develop an empirical analysis of alternative green payments programs for the Corn Belt, which is a significant source of nutrients entering the Gulf of Mexico.

2001-01783 Evaluating the Rosen Characteristic Demand Framework

Parcell, J.L; Stiegert, K.

University of Missouri, Columbia; Missouri Value Added Development Center; Columbia, MO 65201-6200

Grant 2001-35400-10596; \$46,000, 1 Year

Consumer demands for foods that improve their health and lifestyles, identity preservation of crops, and rapid changes in the ability to supply a bundle of characteristics using biotechnology are but a few of the reasons for this increasing concern. However, simply raising the level of a preferred commodity characteristic, using whatever means, may or may not generate the desired result of adding value. Rosen (1974) showed using a simple one characteristic theoretic model how equilibrium in the market for this product characteristic was obtained. His approach is widely recognized as the proper theoretic framework from which to build empirical models to attain parameters that define the demand and supply for product characteristics. Unfortunately, extremely limited data for replicating the scant number of characteristic demand studies completed, and competing opinions about empirical procedures leaves open the question as to reliability of the Rosen two-stage model. Specifically, we update and extend the first-stage hedonic results of a second-stage two-region model; directly estimate the demand for wheat protein in each region simultaneously using protein premium and quality profile data that are readily available; comparatively analyze the demand elasticities from each study.

2001-01708 Experimental Auctions and External Validity: Consumer Demand for Quality Differentiated Beef

Lusk, J.L.

Misnssippi State University, Department of Agricultural Economics, Mississippi State, MS 39762

Grant 2001-35400-10557; \$112,000, 2 Years

In an era of increasing product differentiations where producers, processors, and retailers are attempting to "add-value" to agricultural products, this research will determine the validity of experimental economies in estimating new product premiums and in targeting novel and potentially safer foods to specific consumer segments. The primary goal of this research is to determine if values elicited in experimental auctions are consistent with consumer behavior in a retail setting. This research will investigate these issues in an important and timely application; consumer demand for quality differentiated beef. Despite a recent modest increase, beef demand has declined substantially for the past two decades, emphasizing the need for information concerning the effectiveness of alternative beef marketing strategies. The major goals of this research include: (1) estimating the value quality differentiated beef using four "demand revealing" auctions, (2) comparing the values elicited in each auction to a simulated retail setting, (3) developing novel methods to make direct comparisons between values elicited in an experimental auction and choices made in a retail setting, (4) determining the sensitivity of experimental results to increases in the "realism" of experimental design, and (5) determine the value of beef steaks that have been tenderness graded or produced without growth hormones. To accomplish the stated objectives, consumer behavior in experimental auctions that use real food, real money, and repeated market experience will be compared with consumer behavior in a simulated retail setting with real food and real money.

2001-01716 Externalities in Agriculture: The Economics of Pollination and Honey Markets Rucker, R.R.

Montana State University; Department of Agricultural Economics and Economics; Bozeman, MT 59717-2920

Grant 2001-35400-10627; \$35,000; 3 Years

Pollination services provided by beekeepers represent an important input into the production of many U.S. agricultural commodities. Arguments made in congressional subcommittee hearings in recent years suggest that the value of these services may be as high as \$9 billion. While these estimates almost certainly are greatly overstated, there is no doubt that the pollination services provided by beekeepers are extremely important for the production of certain crops. Given this importance, it is somewhat surprising that little economic analysis of pollination markets has been undertaken. In this project, we propose to extend the existing analysis of pollination markets in three dimensions. First, we will conduct a careful empirical analysis of a considerably larger and richer data set on pollination markets than has previously been assembled. Several years of data have already been assembled, and preliminary results suggest that pollination markets operate in an efficient manner. Second, we propose to examine the economic causes and consequences of the U.S honey program, which was instituted following World War II and then extended for almost five decades (before its elimination in the 1996 farm bill) as a result of arguments that pollination markets under provide pollination services. Third, we propose to examine directly the efficacy of pollination markets by studying the origins of such markets. With the different perspectives and areas of expertise of the multi-disciplinary research group assembled for this project, the resulting output promises to provide valuable insights and basic knowledge concerning an important and largely unstudied sector of U.S. agriculture.

2001-01794 Exporting U.S. Livestock Products to China: Assessment of the Chinese Marketing Distribution System

Qin, X.D.

North Carolina A&T State University; Department of Agribusiness, Applied Economics and Agricultural Science Education, Greensboro, NC 27411

New Investigator Award; Grant 2001-354000-10626; \$150,000, 2 Years

After more than a decade of intensified bargaining, the U.S. and China reached a breakthrough in trade negotiations with the 2000 U.S.-China WTO Accession Agreement. For the first time, U.S. livestock exporters acquired marketing distribution rights within China; thus, bypassing Chinese importers and enabling U.S. exporters to develop their own marketing distribution channels within China. The overall goal of this project is to assess the Chinese livestock marketing distribution system using an institutional framework approach that examines structure, conduct and performance. We believe that in order for U.S. livestock exporters to successfully conduct business in China, they need a clear understanding of Chinese consumers, and business practices of Chinese competitors. In addition to advancing academic research on Chinese marketing channels, results will provide U.S. livestock distributors with Chinese market structure information to enhance competitiveness, one of the goals of the NIRGDP. In addition to academic and outreach publications and presentations, results will be available on web. Specific research objectives to achieve the goal include the following: (1) collect information on laws/rules that govern China's livestock product marketing chain via a literature review & focus group studies; (2) conduct consumer preference surveys for livestock-product attributes-product safety, labeling, brand name, & customized cuts; (3) estimate Chinese consumer preferences using ordered probit models; (4) disseminate results in a variety of venues-academic and outreach outlets. Focus group studies, consumer surveys will occur in selected Chinese cities-Beijing, Nanjing, Shanghai and Guangzhou-administered by our Chinese collaborators under the supervision of the principal investigator.

2001-01785 Demand and Marketing for crops with Improved Quality Consistency Wilson, W.W.; Dahl, B.L.

North Dakota State University; Department of Agribusiness and Applied Economics; Fargo, ND 58105-5636

Grant 2001-35400-10551; \$115,000, 3 Years

Grain quality issues have crucial implications for U.S. competitiveness in the international market. Quality inconsistency in the U.S. grain marketing system is particularly a problem in the case of hard wheats, but can be a problem in other grains. It is caused by numerous factors and practices inclusive of variety proliferation, weather, commercial and agronomic practices. The extent for and causes of the quality consistency problem are now fairly well understood. The overall purpose of this project is to address two critical areas of importance. One is to identify the value of increased consistency. While there are several mechanisms that can be used to improve consistency inclusive of contract specifications, testing, targeting locations and varying forms of identity preservation, all of these necessarily have the impact of increasing costs. Thus, the first overall problem is to determine the value of grains that have improved consistency. The second critical area is to develop and explore contracting and other commercial mechanisms that can be used to improve consistency. Outcomes of the study will have long run implications to the U.S. Wheat Sector and will be useful to participants throughout the wheat marketing chain. Most important will be an assessment of marketing factors that determine the value of improved consistency, and for buyers and sellers, the efficacy of different market mechanisms in improving quality consistency.

2001-01641 State Corporate Farming Restrictions and Industry Structure

Azzam, A.; Schroeter, J.R.; Aiken, D.

University of Nebraska; Department of Agricultural Economics; Lincoln, NE 68583-0922 Grant 2001-35400-15098; \$33,000; 1 Year

The states of Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Wisconsin have adopted laws that restrict "corporate farming" by making it illegal for corporations (other than family farm or ranch corporations) to own real estate employed in agricultural production. Proponents see these laws as an appropriate means of promoting family-owned-and-operated farms. Opponents argue that the laws, also known as "Anti-corporate Farming Acts," have the undesirable effect of retarding the trend toward larger, more efficient farming and ranching operations. The objective of this research is to assess the relative importance of each of these arguments. Specifically, the investigators develop and apply an econometric methodology to determine whether the Anti-corporate Acts have an adverse impact on the evolution of feedlot size structure in the major cattle feeding states. The significance of the research is to provide farmers, ranchers, voters and policy-makers with a scientific assessment of a policy measure for which the effect on the competitiveness of agriculture is yet to be fully understood.

2001-01633 Assessing Export Subsidy Reduction Commitments in the Agreement on Agriculture

de Gorter, H.

Cornell University; Department of Applied Economics and Management; Ithaca, NY 14853-7801

Grant 2001-35400-10578; \$50,000, 1 Year

Export subsidy reductions is one of the three pillars of commitments made in the Agreement on Agriculture in the WTO. Countries have the task of further reducing the export subsidy allowances, to improve the discipline in order to enhance the effectiveness of the commitments, and to broaden the scope of the discipline on export subsidies. The purpose of this paper is to assess the extent to which export subsidy commitments have been effective and what modifications are needed to improve it. To do so, a comprehensive study of policy developments will be undertaken. Key omissions of what is defined as an export subsidy will be identified. Issues and suggestions for new multilateral rules will be presented to improve disciplines in agricultural export policies for the upcoming trade negotiations. Trade liberalization under export subsidy reduction schedules includes limits on both expenditures and physical quantities. Factors affecting export subsidy expenditures in the intervening years will be isolated. For example, the choice of base period and world market developments may be contributing to subsidy reductions rather than genuine trade liberalization efforts. Aggregation across products and time may have allowed countries to circumvent specific commitments. Criteria will be developed to identify an export subsidy while major policies in key sectors and countries worldwide will be identified as priorities for scrutiny in future trade negotiations. Both a static and dynamic model is proposed to evaluate the various conditions affecting export subsidy reduction commitments in value and volume, and determine the implications of ignoring disciplines on per unit export subsidies.

2001-01631 Genetically Modified Soybeans: Competitiveness of the U.S. Crushing Industry

Sheldon, I.

The Ohio State University; Department of Agricultural, Environmental, and Development Economics; Columbus, OH 43210-1067

Grant 2001-35400-10560; \$75,000; 2 Years

Soybeans are an economically important crop due to their high nutrient content and inexpensive production. The U.S. is one of the world's largest producers of soybeans and their primary products, soy-oil and soy-meal, which are obtained from crushing. The U.S. soybean crushing industry is more concentrated than most other food processing industries, the four largest firms owning about 80 percent of total capacity. While the industry is competitive in the output market, it may have buying power in the soybean market. The degree of market power exercised by the industry depends on its behavioral structure, an understanding of which becomes particularly important when exogenous technological changes occur. At present, introduction of transgenic sovbeans has resulted in the differentiation of a previously homogeneous product, affecting costs of both the crushing industry and farmers. The proposed research will analyze the competitiveness of soybean crushing by evaluating several behavioral models using econometric analysis. The results will identify the degree of market power and the industry's responses to technological shocks. Using these results, together with estimates of the technological effects of transgenic soybeans, we will model partial adoption of transgenic soybeans as a supply-push process of diffusion of technological innovation. We expect that with distortions in U.S. soybean markets and the monopoly on transgenic soybean seeds and herbicide, the path of domestic adoption and its welfare effects will differ considerably from those in competitive markets.

2001-01714 Traceability: A Market Opportunity or Market Threat to the US Red Meat Industry?

Bailey, D.; Dickinson, D. L.

Utah State University; Department of Economics; Logan, UT 84322-3530 Grant 2001-35400-10556; \$160,000; 2 Years

Recent research completed at Utah State University (USU) suggests the U.S. red meat system is falling behind its major competitors and trading partners in terms of traceability. transparency, and assurance (TTA). In fact the U.S. pork system ranked last when compared against the United Kingdom, Denmark, Canada, Japan, and Australia/New Zealand for TTA. Competitors are moving quickly to develop sophisticated TTA systems that can track red meat products throughout the marketing chain (traceability), provide consumers with detailed information about the processes used to manufacture food at each stage of its production (transparency), and provide third-party certifications for food safety and other claims about inputs and management methods used to produce food (assurance). If competitors successfully differentiate their products from U.S. red meat using TTA, the results could be devastating to U.S. red meat exports and possibly even the domestic red meat market. This research is multidisciplinary and involves both university researchers and industry. It will provide a careful description and ranking of TTA systems for beef and pork in the U.S., its competitors, and customers using techniques developed for previous research at USU. Economic experiments will determine differences in consumer attitudes and willingness to pay for TTA in the U.S., Canada, European Union, and Japan. An initial estimate of the costs and benefits of providing TTA will be provided focusing on costs from the farm level to processor. The results will be

communicated electronically and through meetings with industry, government, and the research community.

2001-01782 Creating Opportunities for Agriculture in Domestic Policy and Trade Negotiations

Orden, D.; Paarlberg, R.

Virginia Polytechnic Institute and State University; Department of Agricultural and Applied Economics; Blacksburg, VA 24061-0401

Grant 2001-35400-10569; \$30,000; 2 Year

Since the 1970's, substantial efforts have been director toward improving competitiveness and opening foreign markets through adoption of less intrusive domestic farm policies and negotiation of international trade agreements. Completion of the North American Free Trade Agreement (NAFTA), established under the World Trade Organization (WTO) of the Agreement on Agriculture at the conclusion of the Uruguay Round negotiations, and passage of the 1996 U.S. farm bill can be argued to have brought to an end one round of these policy developments. The purpose of this multidisciplinary research is to provide a systematic analysis of 2001-2002 U.S. farm policy decisions in an international context. The research has two fundamental objectives. First, to assess whether the movement of U.S. farm policy toward less direct intervention in markets under the 1996 farm bill represents a new political economy equilibrium when the farm bill is reauthorized. Second, to assess how domestic U.S. policy decisions about the next farm bill, which will inevitably be made before the current multilateral World Trade Organization (WTO) negotiations on agriculture are concluded, will affect world market opportunities for U.S. products and the likely outcomes of the international negotiations.